

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

- 1 1 (Currently Amended). A surface treatment apparatus comprising:
2 a sheet heating unit which heats a sheet containing at least a
3 thermoplastic resin layer, the sheet being selected from a thermosensitive
4 recording sheet, an inkjet sheet, an electrophotographic sheet, a hot
5 developing sheet, a silver halide photography sheet, and a silver halide
6 digital photography sheet; and
7 a sheet depression and protrusion-forming unit disposed on a
8 downstream process side of the sheet heating unit which forms depressions
9 and protrusions on at least one of the thermoplastic resin layer and the
10 image-forming layer.
- 1 2 (Currently Amended). A surface treatment apparatus according to Claim
2 1, wherein the sheet heating unit ~~which~~ heats the sheet at a temperature
3 equal to or higher than the softening point of a thermoplastic resin in the
4 thermoplastic resin layer.
- 1 3 (Original). A surface treatment apparatus according to Claim 1, wherein
2 a thermoplastic resin forming the thermoplastic resin layer is a
3 polyethylene resin.
- 1 4 (Currently Amended). A surface treatment apparatus according to Claim
2 1, wherein the sheet comprises the thermoplastic resin layer and ~~an~~ the
3 image-forming layer on a base, and
4 depressions and protrusions are formed on a surface of the
5 image-forming layer ~~surface~~ and at ~~the~~ an interface of the image-forming
6 layer with the thermoplastic resin layer by the sheet depression and
7 protrusion-forming unit.

1 5 (Original). A surface treatment apparatus according to Claim 1, wherein
2 the sheet depression and protrusion-forming unit forms depressions and
3 protrusions at a temperature equal to or higher than the softening point of a
4 thermoplastic resin in the thermoplastic resin layer.

1 6 (Original). A surface treatment apparatus according to Claim 1, wherein
2 at least one of a depression depth, a protrusion height , and a depression
3 and protrusion surface density can be adjusted.

1 7 (Original). A surface treatment apparatus according to Claim 6, wherein
2 the protrusion height is 10 to 100 μ m, and a depression and protrusion
3 interval is 10 to 300 μ m.

1 8 (Original). A surface treatment apparatus according to Claim 1, wherein
2 at least one of a depression depth, a protrusion height, and a depression
3 and protrusion surface density can be adjusted according to customer
4 specifications.

1 9 (Currently Amended). A surface treatment apparatus according to Claim
2 1, wherein the sheet depression and protrusion-forming unit forms
3 depressions and protrusions of different shapes in different parts of the
4 sheet according to ~~the~~ an image to be formed on the sheet.

1 10 (Currently Amended). A surface treatment apparatus according to
2 Claim 1, wherein the sheet depression and protrusion-forming unit
3 selectively drives plural wires ~~by an actuator~~, and depressions and
4 protrusions are formed by giving impacts to the sheet surface with the
5 wires each comprising a depression and protrusion-forming member
6 attached to the end thereof.

1 11 (Currently Amended). A surface treatment apparatus according to
2 Claim 10, wherein the sheet depression and protrusion-forming unit is a

3 ~~magnetic moving type dot~~ an impact printer head.

1 12 (Original). A surface treatment apparatus according to Claim 1, wherein
2 the sheet depression and protrusion-forming unit is a roller having surface
3 depressions and protrusions against the sheet.

13 (Canceled).

1 14 (Currently Amended). An image-forming apparatus comprising:
2 an image-forming unit which forms a visible image on a sheet, and
3 a surface treatment unit, comprising;
4 a sheet heating unit which heats the sheet comprising at
5 least a thermoplastic resin layer, the sheet being selected from a
6 thermosensitive recording sheet, an inkjet sheet, an
7 electrophotographic sheet, a hot developing sheet, a silver halide
8 photography sheet, and a silver halide digital photography sheet,
9 and
10 a sheet depression and protrusion-forming unit disposed on
11 the downstream process side of the sheet heating unit which forms
12 depressions and protrusions on at least one of the thermoplastic
13 resin layer and the image-forming layer, the surface treatment unit
14 performing surface treatment of the sheet on which an image is
15 formed by the image-forming unit.

1 15 (Original). An image-forming apparatus according to Claim 14, wherein
2 the sheet heating unit which heats the sheet at a temperature equal to or
3 higher than the softening point of a thermoplastic resin in the thermoplastic
4 resin layer.

1 16 (Currently Amended). An image-forming apparatus according to Claim
2 14, wherein the sheet comprises the thermoplastic resin layer and an the
3 image-forming layer on a base, and

4 depressions and protrusions are formed on a surface of the
5 image-forming layer ~~surface~~ and at ~~the~~ an interface of the image-forming
6 layer with the thermoplastic resin layer by the sheet depression and
7 protrusion-forming unit.

1 17 (Original). An image-forming apparatus according to Claim 14, wherein
2 the sheet depression and protrusion-forming unit forms depressions and
3 protrusions at a temperature equal to or higher than the softening point of a
4 thermoplastic resin in the thermoplastic resin layer.

1 18 (Currently Amended). An image-forming apparatus according to Claim
2 14, wherein the sheet depression and protrusion-forming unit forms
3 depressions and protrusions of different shapes in different parts of the
4 sheet according to ~~the~~ an image to be formed on the sheet.

1 19 (Currently Amended). An image-forming apparatus according to Claim
2 14, wherein the sheet depression and protrusion-forming unit selectively
3 drives plural wires ~~by an actuator~~, and depressions and protrusions are
4 formed by giving impacts to the sheet surface with the wires each
5 comprising a depression and protrusion-forming member attached to the
6 end thereof.

1 20 (Currently Amended). An image-forming apparatus according to Claim
2 19, wherein the sheet depression and protrusion-forming unit is ~~a magnetic~~
3 ~~moving type dot~~ an impact printer head.

1 21 (Original). An image-forming apparatus according to Claim 14, wherein
2 the sheet depression and protrusion-forming unit is a roller having surface
3 depressions and protrusions against the sheet.

1 22 (Currently Amended). An image-forming apparatus according to Claim
2 14, further comprising:
3 a control unit which conducts one of driving and stopping driving

- 4 the surface treatment unit so as to control an ~~excution~~ execution of surface
- 5 treatment of the sheet.